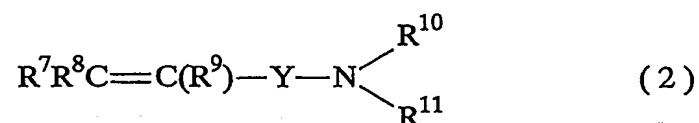
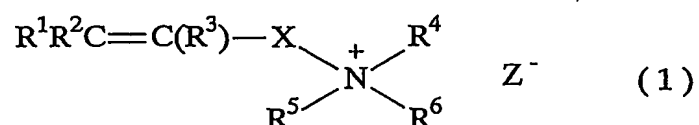


Claims

1. An antifouling detergent for hard surfaces, comprising a polymer having a weight-average molecular weight of 1,000 to 80,000 and having a monomer unit derived from at least one member selected from the group consisting of a compound represented by the formula (1) below and a compound represented by the formula (2) below in an amount of 10 to 100 mol-% relative to the whole monomer units,



wherein R^1 , R^2 , R^3 , R^7 , R^8 and R^9 each represent a hydrogen atom, a hydroxyl group or a C_{1-3} alkyl group; each of X and Y is a group selected from the group consisting of a C_{1-12} alkylene group, $-\text{COOR}^{12}-$, $-\text{CONHR}^{12}-$, $-\text{OCOR}^{12}-$ and $-\text{R}^{13}-\text{OCO}-\text{R}^{12}-$ whereupon R^{12} and R^{13} each represent a C_{1-5} alkylene group; R^4 represents a C_{1-3} alkyl group, a C_{1-3} hydroxyalkyl group or $\text{R}^1\text{R}^2\text{C}=\text{C}(\text{R}^3)-\text{X}-$; R^5 represents a C_{1-3} alkyl group, a C_{1-3} hydroxyalkyl group or a benzyl group; R^6 represents a C_{1-10} alkyl group which may be substituted with a hydroxy group, a carboxyl group, a sulfonate group or a sulfate group, or a benzyl group, provided that when R^6 is an alkyl group, a hydroxyalkyl group or a benzyl group, Z^- represents an anion and when R^6 contains a carboxyl group, a sulfonate group or a sulfate group, Z^- is absent, but these groups of R^6 are anions;

R^{10} represents a hydrogen atom, a C_{1-3} alkyl group, a C_{1-3} hydroxyalkyl group or $R^7R^8C=C(R^9)-Y-$; and R^{11} represents a hydrogen atom, a C_{1-3} alkyl group or a C_{1-3} hydroxyalkyl group.

2. An antifouling detergent composition for hard surfaces, comprising the polymer (a) described in claim 1 and a surfactant (b)

3. A method of antifouling and washing hard surfaces, which comprises treating the hard surfaces with the polymer described in claim 1 or the composition described in claim 2.

4. The method according to claim 1, wherein the hard surfaces are those of toilet bowls.

5. Use of the polymer described in claim 1 or the composition described in claim 2 as an antifouling detergent for hard surfaces.